# Can you plug an old hard drive into a new computer?

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HOW OLD is it? hard drives from the 1980s to early 1990s had MFM interfaces to a controller card. ST506/ST412 - Wikipedia The interface involved two ribbon cables of different widths connecting to a controller card that plugged into IBM PC or PC-AT buses. I’m not sure you could find an MFM controller card that would plug into a more current PCI bus. If you could, it would probably need a special software driver, possibly very hard to find. Also, MFM drives were 5.25″ wide. Perhaps you could install one of these in an optical drive bay.

At the very least, getting an ancient MFM drive working again on a modern computer would be a project only for the computer-intrepid. After jumping through all the hoops, you might discover the drive’s data are no longer readable due to magnetic entropy over time.

After MFM came IDE drives that moved controller circuitry into the drive itself. IDE drives came in 3.5″ and 2.5″ widths. 3.5″ drives had a 40-line interface cable that plugged into a header on the motherboard. They also needed 5 and 12 volt DC, supplied through a 4-pin Molex connector. Computers from the IDE era provided these connections. Current computers only natively accomodate SATA drives, which have different signal and power connectors, although adapters are available that would let you install a 3.5″ IDE drive in a modern desktop computer.

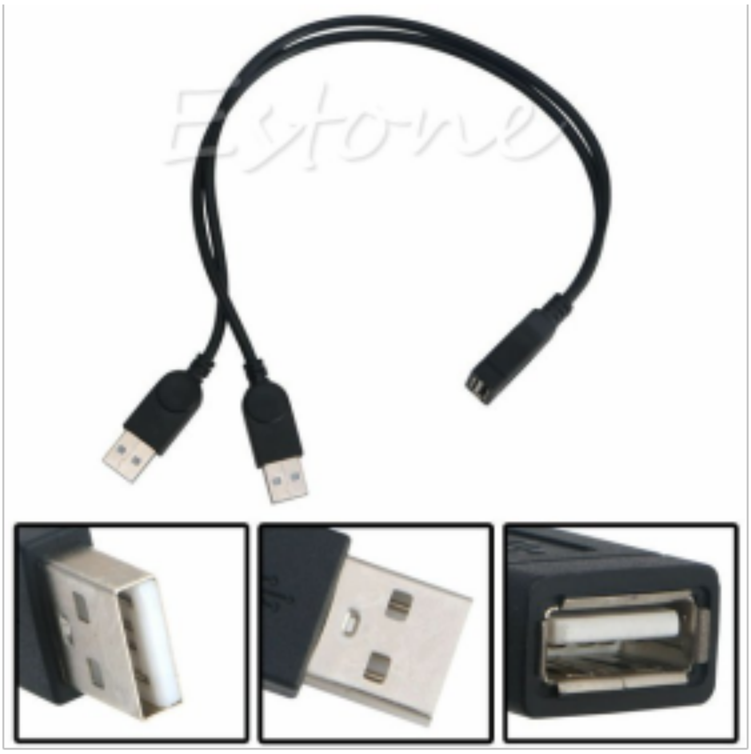
2.5″ IDE drives use a 44-pin ribbon cable that integrates power supply as well as data. Typically, IDE-compatible laptops have the proper connectors. desktops don’t, however simple adapters are available that mediate between the drive’s 44 pin connector and a desktop’s 40 pin ribbon cable plus its Molex power connector. You could also need a spacer adapter to install the 2.5″ drive in a 3.5″ bay.

Given that IDE drives came in small capacities by current standards, and adapting one to a modern PC would involve kludge-y adapters, it’s usually better to resort to adapters that turn them into external drives with a USB connection to the modern PC. They cost about $5 on EBay and look like this:

For 3.5″ drives, you will also need an external 5/12 volt power supply, costing another $5 or so, like this:

The plug in the photo is the Molex one that plugs into the drive. A standard keyed computer power cable — not shown — plugs into the other end of the small box.

For 2.5″ drives, you don’t need an external power supply, however a USB port can only supply 0.5 amperes of current. Some 2.5″ drives need more than that. The solution is a “Y” connector plugging into two USB ports on the computer, doubling the current, and then the IDE-USB adapter plugs into the single female USB connector:



For temporary external use of an IDE drive, it isn’t necessary to put the drive in an enclosure, as long as you put paper, cardboard or other electrical insulation between the drive’s circuit board and anything metal. Of course you also need to be careful not to subject the bare drive to mechanical shocks or strong impacts. The accessories described above can readily be moved from drive to drive, so you can pull files off any number of IDE drives, of different capacities and sizes.